

19991101.ba v02_n717.bam.991101

>From ???@??? Tue Nov 02 02:44:03 1999
Message-Id: <199911012036.dA1KaSw17632@sco.theporch.com>
Date: Mon, 1 Nov 1999 14:35:42 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2717

BOATANCHORS Digest 2717

Topics covered in this issue include:

- 1) 811-A Input Stage for W1GS
by "David M. Upton" <david@wb1cmg.mv.com>
- 2) Re: Homemade tubesters
by "Jim Carrington" <jcall@sirius.com>
- 3) FS RBL-2
by Matt Parkinson <mattradi@earthlink.net>
- 4) Re: SCR-178,9 TM (Was WTD: Info BC-187)
by "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>
- 5) Re: Pentode Regenerative Detectors (long)
by "Barry L. Ornitz" <ornitz@tricon.net>
- 6) Re: Regenerative Detectors
by Hue Miller <kargokult@proaxis.com>
- 7) Re: Scopes, etc.
by Henry van Cleef <vancleef@netcom.com>
- 8) FS: Receivers San Diego area
by John Kolb <jlkolb@cts.com>
- 9) Re: HEWLETT PACKARD OSCILLISCOPE-1200B
by "Roberta J. Barmore" <rbarmore@indy.net>
- 10) RE: Scopes, etc. one caveat/PS (453)
by John Shriver <jas@shiva.com>
- 11) WTT/WTB: General Radio Experimenter's/Catalogs
by John Poulton <jp@cs.unc.edu>
- 12) ADMINISTRIVIA: Buying and Selling Guidelines
by listown@jackatak.theporch.com (Mail List Owner)
- 13) FS Misc.
by "Ragnar Otterstad" <otterstad@inet.uni2.dk>
- 14) RE: Scopes, etc. one caveat/PS (453)
by "Ed Tanton" <n4xy@att.net>
- 15) RE: Scopes, etc. one caveat/PS (453)
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>
- 16) Need KWS1 Connector
by Matt Jodziewicz <mattj@oraus.com>
- 17) RE: Scopes, etc. one caveat/PS (453)
by "Ed Tanton" <n4xy@att.net>
- 18) Re: Pentode Regenerative Detectors (long)

by Arden Allen <gumbear@pacbell.net>

Message-ID: <381D3BC5.2A09@wb1cmg.mv.com>
Date: Sun, 31 Oct 1999 23:05:41 -0800
From: "David M. Upton" <david@wb1cmg.mv.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 811-A Input Stage for W1GS
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I told W1GS I would post this for him since he is not a list member.

He is trying to get an amplifier input match working that drives 811As with four in parallel. Would anyone know the inductance and slug colors of the various coils used in a 30L1 design? Please send e-mail to:

W_john_good@res.raytheon.com

Not me!

David M. Upton, WB1CMG

Message-ID: <000b01bf2424\$c828c180\$4ef286cd@jcall.sirius.com>
From: "Jim Carrington" <jcall@sirius.com>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: <boatanchors@theporch.com>
Subject: Re: Homemade tubesters
Date: Sun, 31 Oct 1999 20:50:18 -0800
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Arden,

Sorry about the treason but I work for a semiconductor company and have to occasionally publicly show my loyalty to the industry (job security) :) .

73s

Jim

-----Original Message-----
From: Arden Allen <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>; jcall@sirius.com

<jcall@sirius.com>

Date: Sunday, October 31, 1999 3:38 PM

Subject: Re: Homemade tubesters

>Hi Jim;

>

>>It explaines how to duplicate the characteristics of any
>particular

>> triode or pentode receiving tube with 1-2 N channel FETs and a few
>resistors

>> and capacitors using a few equations and the tube data from a tube
>>manual.

>

>No way! I'd rather find a substitute tube and modify to suit if necessary.

> Whenever I work on transistor stuff I have to mutter incantations to ward

>off the hollow state spirits. And when I go back to working on tube stuff

>I have to do likewise to the solid state spirits. When I work on hybrid

>gear I get schizophrenic!

>

>Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

>

Message-ID: <381D1CAE.D60BA9FA@earthlink.net>

Date: Sun, 31 Oct 1999 20:53:02 -0800

From: Matt Parkinson <mattradi@earthlink.net>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: FS RBL-2

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

I have a RBL-2 mitliary National radio for sale. In ok condition soes
need some TLC . All knobs and tubes are there I have not plugged it in
because it has been stored for several years and i don't want to take
the chance of burning anything up . I have no use for this radio my
other choice is to part it out . 75.00 + shipping from 92869.
thanks Matt Parkinson

Date: Sun, 31 Oct 1999 23:57:16 -0500

From: "ROBERT W. DOWNS" <RWDowns_WA5CAB@compuserve.com>

Subject: Re: SCR-178,9 TM (Was WTD: Info BC-187)

To: Old Tube Radios <boatanchors@theporch.com>

Message-ID: <199910312357_MC2-8B32-7379@compuserve.com>

MIME-Version: 1.0

Content-Transfer-Encoding: quoted-printable

Content-Type: text/plain;
charset=ISO-8859-1
Content-Disposition: inline

Tom & Group,

The SCR numbers are SCR-178 (pack) and SCR-179 (mule).
The TM's were TR 1210-21 and TM 11-231. Paul T. did some
copies of the latter about six weeks back. It was mentioned =
here. If Paul doesn't want to do another batch, I scanned mine =
(copy, not original, which I am still looking for - hint hint), blew it =
up to 8-1/2 x 11, cleaned the spots and specs off of the pages =
and cover, and printed it. I can print and screw post bind more =
if needed. With the exception of one photo of the radio set up =
in an open field, all of the photos show how to strap the set onto =
a mule. So I judged that as far as info on the radio was =
concerned, being as it were a second generation copy doesn't =
degrade the quality at all. All of the views of the radio =
components are line drawings, either straight or isometric. =
Paul did an excellent job of adjusting the copy machine that he =
used on the original.
BTW, I apologize for once again forgetting to edit the Subject =
line in my previous post. =

Message text written by Tom B

>I also could use a copy of the manual for the BC-186, BC-187,
and BC-188. (I don't know the SCR number.)
<

73,
Robert Downs
WA5CAB
Houston

Message-Id: <199911010502.AAA03613@flash.naxs.net>
From: "Barry L. Ornitz" <ornitz@tricon.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Pentode Regenerative Detectors (long)
Date: Mon, 1 Nov 1999 00:57:11 -0500

Frank, K6NL. wrote:

>Interesting analysis. However it does not explain why some regenerators
slide
>easily in and out of oscillation while others go in and out with a "plop".
>This is critical because the ability of the receiver to creep up close to
but
>not into oscillation determines their sensitivity,.

I haven't really joined in this discussion as I wanted to see where it went. For those that want to get "down and dirty" with the math, the best reference is two chapters in E. Leon Chaffee's "Theory of Thermionic Vacuum Tubes". Chaffee's discussion of regeneration is the most complete I have seen. It was written in 1933.

One chapter is devoted to small-signal analysis and a second to large-signal analysis. Later chapters discuss multistage regeneration which we now generally call feedback theory.

Small-signal analysis works for weak signals when the regeneration has not quite reached its critical point. It is a good introduction to how the gain and Q of an amplifier stage can be greatly increased by regeneration.

But when the state approaches the critical point - just before sustained oscillation occurs and the point of maximum sensitivity, small-signal analysis generally falls apart. Large-signal analysis must be used which takes into consideration the nonlinearity of the tube.

Chaffee gets into this extremely deeply, (and it is not worth trying to repeat here) but different tubes behave quite differently depending on their characteristics. As Frank notes, some jump into oscillation very rapidly (the "plop") while others creep there slowly. Chaffee shows this with curves of coefficient of regeneration as a function of tube operating points. With some tubes, a very small signal will be received normally but when a larger input signal appears, the tube can suddenly go into sustained oscillation. His analysis gives a method of predicting this behavior.

While F. E. Terman is normally considered one of the best sources for radio theory (and he IS excellent), I have found several books (Chaffee, Nyquist,

Everitt, Zworykin, etc.) from the decade that predated his work to be far better books from a theoretical and analytical viewpoint. But then, I prefer Terman's "Radio Engineering" much more than his "Radio Engineer's Handbook".

So for more than you ever really wanted to know about regeneration, find a library with a copy of Chaffee. By the way, Chaffee is generally known best today for his method of predicting the output power of amplifier tubes. The Eimac "Tube Performance Computer" and the method in the RCA TT-5 "Transmitting Tube Manual" are based on Chaffee's analysis.

73, Barry L. Ornitz WA4VZQ ornitz@tricon.net

Message-Id: <3.0.5.32.19991031223522.007d5620@proaxis.com>

Date: Sun, 31 Oct 1999 22:35:22 -0800

To: Old Tube Radios <boatanchors@theporch.com>

From: Hue Miller <kargokult@proaxis.com>

Subject: Re: Regenerative Detectors

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

At 11:18 PM 10/31/99 EST, FRANKK6NL@aol.com wrote:

> I have a Crosley 51 with a 201A regenerative detector transformer coupled to a
>201A audio amplifier that in its original state went smoothly in and out of
>regeneration. Unfortunately the original audio transformer became defective
>and I replaced with a rather good transformer which was used in a hi
>fidelity application and has presumably very good low and high frequency
>response.. The receiver immediately developed the confounded "plop".

--I couldn't resist replying to this, as i also have a Crosley 51. The transformer was shot too, this was the condition as offered to me. When i went to pick it up, the seller had in the interim hooked a HV transformer up to the open audio transformer and "snapped" it back to life. I don't recall the snapping voltage, i wonder if it was in the 600 jolt range or higher, like an old scope transformer. When i asked how long is the right length of time to apply the HV, he just replied something like "about that long".

The Crosley still had all the batteries in the bottom case - no leakage. There was old newspaper stuffed in there to secure the batteries. The newspaper was from Chicago, dated 1926. Someone back then, when the transformer blew, was just disheartened and put the radio aside. Took 60 years for someone to think up and execute a simple fix.

>I assumed that perhaps the new transformer had primary which had a better
>inductance to resistance ratio than the original but the "plop" persists no

>matter how much I resistance loaded it with in series or in parallel in
>either primary or secondary.

--wow. That is hard to explain. And the new transformer had approximately
the same ratio as the old?

Hue Miller

From: Henry van Cleef <vancleef@netcom.com>
Message-Id: <199911010630.WAA17798@netcom.com>
Subject: Re: Scopes, etc.
To: Old Tube Radios <boatanchors@theporch.com>
Date: Sun, 31 Oct 1999 23:30:53 +1700 (MST)
Cc: boatanchors@theporch.com
MIME-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: 7bit

Scope choices for working with ham radio?

For cheap and durable, brand T is the only way to go, so far as I am
concerned. You can read Stan Griffiths' book and see what he says,
but he and I essentially agree on a few models. 547 with an
assortment of good plug-ins was the best choice in the late 1960's,
and you still can't do much better. They are built like battleships,
and people will be using them fifty years from now. The other scopes
I like the best were built on the same physical platform:
544/546, 543B, 545B, 535A, 533A. All of these are easy to repair and
calibrate, have nice big displays and good trace spot size and writing
rates. Drawbacks are that they are huge, heavy, and will heat your
house whether it's winter or summer. Also, some of the plug-ins
(early 1A1/2/4) have (ugh!) nuvistors, although in light duty use
they'll last a long time.

While the 422, 453/4 and 465 models are much smaller, and some have
more bandwidth, they're also full of tiny specialty parts and have
unobtainium CRT's.

The Dumont 766H with an assortment of plug-ins has a better CRT than
the 547, is much smaller, and draws a lot less power. They are also
full of exotic (for the day) transistors, and while substitutes aren't
too hard to figure out, getting the thing to work right can be
daunting unless you know exactly what you're doing.

Real stay-away-froms? Storage scopes have short-lived CRT's, and the
storage feature generally means a muddy spot and much slower writing
rates. Sampling scopes are cantankerous beasts, and have very limited
uses. For both, a modern digital scope is vastly superior. The

high-end HP scopes of the sixties tend to have things like heat problems, and weren't known for their reliability when new. The 545 wannabes, foisted off on Uncle Gov't agencies (Hickock, Lavoie) also are just so much electronic junk, although a fine source of quality parts----sort of like a dead buffalo for a bunch of coyotes. Parts last all winter. Early Tek scopes packaged in the slide-out cans are no bargain either, and I don't mean just the 511 and 514 and their cousins, but the early 530-540 series as well. Also, the 580 series. These were "state-of-the-art" when built, and while a 585A with an 82 in good shape does a good job, it's also got a 4CM vertical range and lots of trace compression. A good 547/1A1 has a nice tall display, no trace compression, a much simpler vertical amplifier, and almost as much bandwidth at the probe tip.

Just for laughs, I'll mention that my main scope is a 533A with a low-time genuine Tek CRT. Dirt simple, and I have a bunch of plug-ins for it, and find that the 15Mhz bandpass is rarely a limit on actual measurements I want to make. For "little" scopes, I've got two 310's, which do quite well, but they're hotboxes.

Then, of course, there is the 575 Curve Tracer, which works with transistors and diodes, but not vacuum tubes. Really worth its weight in gold when you need to substitute an available transistor for an obsolete one. I've got one, a mod 122C (high voltage/higher current), that really paid for itself the first time I used it. Later curve tracers are set up to do FET work as well.

Of course, "good scope" is whatever turns you on, and if you come across something that is clean/working/calibrated for cheap, and want to use it, be my guest.

--

=====
Hank van Cleef
=====

Date: Sun, 31 Oct 1999 23:19:12 -0800 (PST)
From: John Kolb <jlkolb@cts.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS: Receivers San Diego area
Message-ID: <Pine.BSI.4.05.9910312312020.2390-100000@king.cts.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Gotta sell some of my babys.

1. R-390A With covers and meters and Navships manual

\$ 450 pickup only

2. Wells Gardner RAO-?, with matching WG RAO-5 speaker,
and RAO-7 original manual. \$100 pickup only.

3. Hallicrafters SX-122 with original manual \$ 150

Discuss condition, etc of these by e-mail if interested.

John Kolb Ramona, CA KK6IL

Date: Mon, 1 Nov 1999 06:11:43 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: HEWLETT PACKARD OSCILLISCOPE-1200B
Message-ID: <Pine.SUN.4.10.9911010604230.17070-100000@indy1>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi!

I'll second Jim's opinion here--I have used similar h/p 'scopes as audio phase indicators at the TV transmitter site for some years now. They're cheaper than any other such indicator! (And at the usual prices, they're readily replaceable).

But it's not an RF 'scope. For such work, the better of the giant Tek "boatanchor" 'scopes or the SS ones (like the 7600 mainframe and plug-ins) are a much better bet.

As a general principle, if it says "Tektronix" on it and it was built before about 1990, it's an oscilloscope and will do all the usual scope-type things in a predictable, consistent manner. Otherwise, it's a simulation of a 'scope, of widely varying similarity to a *real* 'scope. (Phillips had some nice little ones that are almost an exception to the rule).

73,
--Bobbi

KB9GKX "RJ" rbarmore@indy.net Roberta J. (Bobbi) Barmore
FISTS #3388 * G-QRP #10001 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Date: Mon, 1 Nov 1999 09:30:12 -0500
Message-Id: <199911011430.JAA08659@brill.shiva.com>

From: John Shriver <jas@shiva.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Scopes, etc. one caveat/PS (453)

> P.S. If you are shopping for 453s, stay away from any 453 with Nuvistors.
> They are not only the oldest 453s, but the Nuvistors are hard to find,
> and a REAL job to set the DC Balance on when calibrating the 'scope.

Deane Kidd has PLENTY of stock of Nuvistors for Tek scopes. Well, he doesn't have the tested and aged ones for the 454 input, but he has the generic 8393's. He's very fair about prices too.

Moreover, the Nuvistors are more available than the first-generation FET's in the 453A and 454A. Try and find those today.

Also, the Nuvistor input 453 and 454 are much harder to damage through application of inappropriate signals than the FET input 453A and 454A.

On the other hand, the 453A and 454A have considerably larger CRT's than their predecessors. The divisions on the screen are closer to 1 cm apart.

The 453, 453A, 454, and 454A all have very nice clear traces on the CRT. The post-deflection acceleration grid on the 465, 475, etc., leads to a comparatively diffuse (if bright at high speeds) trace.

Date: Mon, 1 Nov 1999 11:26:49 -0500 (EST)
From: John Poulton <jp@cs.unc.edu>
Message-Id: <199911011626.LAA02570@mira.cs.unc.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: WTT/WTB: General Radio Experimenter's/Catalogs

Thanks first to stumbling on a General Radio 1025-A sweep generator at a recent hamfest (a truly wonderful instrument, and a SERIOUS boatanchor), and with a bit of a push from Roy Morgan, I'm now rapidly slithering down the slippery slope of GR Collectordom.

Part of this madness requires the acquisition of GR Experimenter magazines, a wonderful little publication that GR sent to its fans every month or so from the 30's(?), well into the 70's.

Looks like I've got the following issues available for trade:

Vol 31 No. 8	Jan 57
Vol 31 No. 9	Feb 57
Vol 31 No. 11	Apr 57
Vol 32 No. 2	Jul 57
Vol 32 No. 3	Aug 57

Vol 32 No. 4 Sep 57
Vol 32 No. 5 Oct 57
Vol 32 No. 7 Dec 57
Vol 32 No. 11 Apr 58
Vol 32 No. 12 May 58
Vol 32 No. 13 Jun 58
Vol 32 No. 14 Jul 58
Vol 32 No. 15/16 Aug/Sep 58
Vol 32 No. 17 Oct 58
Vol 32 No. 18 Nov 58
Vol 32 No. 19 Dec 58

I'm in need of the following issues to fill out Volumes 31-36:

Vol 31, No 3
Vol 31, No 6

Vol 33, No 3
Vol 33, No 5

ALL of VOLUME 34

Vol 35, No 1
Vol 35, No 2
Vol 35, No 6

Vol 36, No 4
Vol 36, Number 8 and up

And most issues outside that range!

Let me know if you have anything you'd like to trade/sell, or if you have any other GR memorabilia you'd like to unload. I'm also looking for Catalogs M, R, or T, or anything before L.

73,
John Poulton KF4OZY

Message-Id: <199911011715.dA1HF1423785@jackatak.theporch.com>
From: listown@jackatak.theporch.com (Mail List Owner)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ADMINISTRIVIA: Buying and Selling Guidelines
Date: Mon, 1 Nov 99 11:15:01 CST

Gang-

This periodic posting is intended as a gentle nudge and suggestion which should improve the quality of posts to the BoatAnchors list, and maintain our excellent (and high) signal to noise ratio...

The list culture has developed to include "for sale" and "wanted" posts. Originally, all buying and selling traffic was focused on finding parts to complete a restoration. As the list has evolved, there has been an increase in buying and selling activity, which may not be all bad.

There is, however, a real need to observe certain conventions, lest this otherwise benign activity turn into a real disturbance to the real purpose of the list: discussions of radio equipment using vacuum tubes, including the life and times of the designers and users of such gear.

Please observe these guidelines:

There is never a reason for an auction post or update on the Boatanchors List... comments about gear at auction elsewhere are noise, and those who would care already visit the auction sites, and those who do not frequent the auctions do not want to hear about it... simple policy

- 1) LIMIT the frequency of for sale postings... once a month is a good starting point
- 2) DO NOT post endless "xxx is sold" to the entire list... you offered it for sale, and it is not considerate of list resources (which include the time and energy of the other list members) to burden the list with these senseless notices. Use direct email to those who responded, or, if you don't want to answer them personally, just don't use the list to advertise them for sale!
- 3) AVOID even the mere faint appearance that you are posting items for sale as a regular adjunct to your business dealings. This has become more of a problem lately with some long lists showing up regularly on the main list, or with dealers who appear to be using the list for their personal advertising advantage. Failure to observe these basics *will* result in banishment from the list -- just don't do it! When even a shadow of doubt creeps in, read the "Welcome" message again... it spells it out!
- 4) DO be considerate of those on the list in your for sale or wanted postings. Keep them short, infrequent, and ONLY include items specifically appropriate to the list -- NO solid state gear is obvious, but try to avoid pushing the envelope in any area.

5) LONG lists and estate offerings should be sent to me at:
listown@jackatak.theporch.com
so they may be uploaded to the archives for email, web, or ftp retrieval.

6) We now have a web page up. Go to:
<http://www.theporch.com>
and follow the "ListProc Web Interface" Link to get registered
and use the web interface, which allows searching of previous
articles and the archived text files.

Thanks for your understanding and help in making the boatanchors list
have the highest signal to noise on the InterNet.

--

73

Jack, W4KH/Mobile - - - BoatAnchor Mailing List Owner - - -
listown@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"
"Il n'y a que les idiots qui ne changent jamais d'idee"
Mon Nov 1 11:15:01 CST 1999

Message-ID: <008e01bf2484\$33dbf780\$1f00a8c0@mec.dk>
From: "Ragnar Otterstad" <otterstad@inet.uni2.dk>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: FS Misc.
Date: Mon, 1 Nov 1999 17:13:47 +0100
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="-----=_NextPart_000_008B_01BF248C.7579C840"

This is a multi-part message in MIME format.

-----=_NextPart_000_008B_01BF248C.7579C840
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

I have found the following in my basement :

VT1-C tube Used

DM-24D dynamotor

495-LVA radar tube (magnetron ?) in wooed case.

Anybody out there interested for the cost of shipping ?

73 Rag LA5HE

-----=_NextPart_000_008B_01BF248C.7579C840

* ---REMAINDER OF MESSAGE TRUNCATED--- *
* This post contains a forbidden message format *
* (such as an attached file, a v-card, HTML formatting) *
* Mail Lists at theporch.com only accept PLAIN TEXT *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *

From: "Ed Tanton" <n4xy@att.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Scopes, etc. one caveat/PS (453)
Date: Mon, 1 Nov 1999 12:56:06 -0500
Message-ID: <NBBBJDEEIFDDANGEGHLBAELCHIAA.n4xy@att.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Absolutely true about finding the FETs-unless Dean has 'em. But I wouldn't take a Nuvisotred 453 on a bet. For free.

454's are a different story. THEY also do very well with Nuvistors in place. I could never understand why the Nuvistored 453s had to be so difficult to set such things as DC balance, etc. when the 454 would set like a charm. When I said 485 yesterday, it SHOULD have been 454s. But 485s were really neat-what little I got to play with them. 454s are too.

And don't get me wrong about FET 453s: I love 'em. Great 'scopes.

72 / 73 Ed N4XY email: <n4xy@arrl.net>

webpage: <http://www.qsl.net/n4xy/>

Message-Id: <3.0.1.32.19991101123449.00917d20@vuse.vanderbilt.edu>
Date: Mon, 01 Nov 1999 12:34:49 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>
Subject: RE: Scopes, etc. one caveat/PS (453)
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 09:30 AM 11/1/99 -0500, you wrote:

>> P.S. If you are shopping for 453s, stay away from any 453 with Nuvistors.

>> They are not only the oldest 453s, but the Nuvistors are hard to find,
>> and a REAL job to set the DC Balance on when calibrating the 'scope.

I gotta jump in and take a swing or two here. I've got a 453
nuvistor-style. It is ex-IBM, complete with probes and cover, and cost \$75
shipped. Works great, only have DC balance problems on the most sensitive
setting, clean, bright trace, does an honest 60 mHz or so. And yes, the
fan is noisy, but I lubed it and so far it seems fine.

It's the economy..... ;)

73 A. B. Bonds

Message-ID: <30AB00986E91D211A08B00104B8942F01A1F1A@ORAMAIL>
From: Matt Jodziejewicz <mattj@oraus.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Need KWS1 Connector
Date: Mon, 1 Nov 1999 11:09:33 -0800
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="----_=_NextPart_001_01BF249C.A289C3D0"

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-----_=_NextPart_001_01BF249C.A289C3D0
Content-Type: text/plain;
charset="iso-8859-1"

Help!!

I need the 15 pin female connector for the control line connections
on the back of the exciter unit of a KWS1 I am trying to fire up. Does
anybody have one of these or know its nomenclature or where I can get one?

Any help appreciated.

Thanks.

Matt WB2VZS

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From: "Ed Tanton" <n4xy@att.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Scopes, etc. one caveat/PS (453)
Date: Mon, 1 Nov 1999 14:10:49 -0500
Message-ID: <NBBBJDEEIFDDANGEGHLBCELHHIAA.n4xy@att.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Unfortunately, THE place where you set the DC BAL during a Calibration is where it is at it's worst. Practically impossible to set properly. You wind up fooling around with it 'til you just leave it at a sweet spot it happened to land on-and banging anywhere on the board would knock it right back out.

As long as you're not interested in DC levels/offsets, I would agree with Dick that they ought to be a lot tougher front end than the later FETs were.

By the way, considering my obvious distaste for the things (Nuvistors) imagine my chagrin when the Kahn SSB Adapter I recently got in has ONLY Nuvistors, 8056s & (awk!!!) 7587s WITH PLATE (GRID?-I haven't even looked to see which, on the schematic) CAPS!!! Came in minus one 8056... but I'll worry about that when the time comes.

72 / 73 Ed N4XY email: <n4xy@arrl.net>

webpage: <http://www.qsl.net/n4xy/>

Date: Mon, 01 Nov 1999 12:02:04 -0800
From: Arden Allen <gumbear@pacbell.net>
Subject: Re: Pentode Regenerative Detectors (long)
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <0FKJ00AP6D56W2@mta2.snfc21.pbi.net>
MIME-version: 1.0
Content-type: text/plain; charset=ISO-8859-1
Content-transfer-encoding: 7bit

Hi Frank;

> Interesting analysis. However it does not explain why some regenerators slide

> easily in and out of oscillation while others go in and out with a
"plop".

It was alluded to as a shift in DC operating point. Consider that if the point of at which the gain exceeds one plus what is needed to overcome losses is also the point at which the signal on the grid is large enough to begin a shift in the DC operating point of the detector (grid current) and the shift INCREASES detector gain than you will get a "bloop" as the detector shifts from one side to the other of its hysteresis prone operating characteristic. If the shift in operating point tends to REDUCE detector gain than the effect will be that the detector will tend to dwell right at the verge of oscillation and will not be a blooper but may be difficult to maintain at a precise point of regeneration. If there is no shift the transition will be easiest to deal with.

>I suspect the audio transformer or choke in the output may play a part. I
> have a Crosley 51 with a 201A regenerative detector transformer coupled to a
> 201A audio amplifier that in its original state went smoothly in and out of
> regeneration.

Could it be that there is a large difference in winding resistance of the two transformers?

> I think this may well lead us into a philosophical discussion as to what is
> the mechanism that makes an oscillator "start".

If there were no "signal" to feed back, there could be no oscillation. No one has built a noiseless amplifier (the audiophooles probably think it can be done) yet to my knowledge so don't worry.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

End of BOATANCHORS Digest 2717
